REMARKS

This is in response to the Office Action dated March 19, 2009. In view of the foregoing amendments and following representations, reconsideration is respectfully requested.

By the above amendment, claims 46-48 and 50-53 are cancelled in order to expedite the prosecution in the present application. Thus, claims 55, 56 and 59-62 are currently pending in the present application.

In the previous Office Action, claims 55, 56 and 59-62 are rejected as being unpatentable over Pickhard (U.S. Patent No. 5,147,311) in view of the Dow Corning article and Codner (U.S. Patent No. 5,686,304) in view of Baidwan et al. (U.S. Patent No. 4,299,238), Karakashian (U.S. Patent No. 3,937,219) and Polak (U.S. Patent No. 5,114,421). It is submitted that the present invention, as defined by the pending claims, clearly distinguish over the above combination of six prior art references for the following reasons.

The present invention, as defined in independent claim 55 is a syringe-type cell handling device that includes: a vessel capable of holding, in a liquid-tight state, a fluid handling medium that contains cells, the vessel having a closed mouth and being at least partially composed of a main body; and a plunger that is slidably insertable into the main body such that the handling medium can be transplanted into a living body by applying a pushing force to the plunger. The handling medium can be transferred between an interior and an exterior of the vessel by the pushing force via the mouth when opened in the vessel to end the liquid-tight state, the mouth connecting the interior and the exterior.

The claimed device is characterized by the following: a discharge part is formed at a surface

of the vessel that makes contact with the plunger when the plunger is in a fully pressed state; at least part of the surface that contacts the handling medium, when the vessel holds the handling medium, is a gas permeable region for passing a quantity of gas necessary for survival of the cells, and at least a part of the gas permeable region is formed in the surface of the vessel that makes contact with the plunger when the plunger is in the fully pressed state; and in the main body, at least the gas permeable region is a porous film made of one or more among polytetrafluoroethylene, tetrafluoroethylene-hexafluoropropylene copolymer, polyethylene terephthalate, polypropylene, polyethylene, and hydrophobic polyvinylidene fluoride.

As described above, according to the present invention, a gas permeable region made of a predetermined material is formed in the surface of the vessel that makes contact with the plunger when the plunger is in the fully pressed state. Consequently, when the device is in use, an operator does not need to perform any special operation but just needs to push the plunger to make the device discharge excess gas from the interior of the vessel to the exterior efficiently. Additionally, when the operator operates the plunger while the syringe portion is pointed upward, unnecessary gas can be naturally discharged to the outside, thereby enhancing the user-friendliness of the device.

Furthermore, according to the claimed invention, gas necessary for survival of the cells can be promptly taken into the interior of the vessel from the exterior through the gas permeable region.

These advantages of the present invention, together with the above-mentioned capability of discharging unnecessary gas quickly and efficiently, are extremely effective for constantly

maintaining the satisfactory condition of the cells stored in the vessel and maintaining their vital activity at an appropriate activation level. Also, the device of claim 55is an excellent cell storage vessel, and the satisfactory gas circulation to/from the interior and the exterior of the vessel achieves a highly effective advantage which conventional cell handling devices cannot achieve.

In contrast to the invention defined in claim 55, each prior art reference cited by the Examiner discloses a cell handling device including a predetermined gas permeable resin or a gas permeable region made of the resin.

However, none of the cited references discloses or suggests, in a cell handling device, a structure that includes a gas permeable region made of the highly-gas permeable resin, required in claim 55, in a surface of the vessel that makes contact with the plunger when the plunger is in a fully pressed state.

Specifically, although each of the Baidwan, Karakashian, Polak, and Pickhard references discloses a structure of a syringe-type (including cylindrical-type) vessel, where the main body, plunger, or ampoule inside the main body of the vessel has a certain degree of air permeability, none of these references discloses providing a gas permeable region in the surface of the vessel that makes contact with the plunger when the plunger is in a fully pressed state. Moreover, each of these references discloses that the gas permeable region of the vessel merely is a structure for discharging extra gas inside the vessel to the outside. Thus, none of the applied references clearly discloses, in its specification, a recognition of the problems and solutions regarding how to efficiently discharge extra gas, to the outside in order to maintain the cells (i.e.

position of the gas permeable region, technical observation regarding the position, a structure of the region, 'embodiments and such).

Accordingly, even if one of ordinary skill in the art was to combine a syringe according to one of Baidwan, Karakashian, Polak, and Pickhard with a silicone material according to the Dow Corning article and Codner, based on the technical common knowledge at the time of the present invention, the resulting combination would not have resulted in a syringe-type cell handling device including a predetermined gas permeable region in the surface of the vessel that makes contact with the plunger when the plunger is in the fully pressed state.

Therefore, it submitted that the invention of Claim 55 of the present application is allowable over the collective teachings of the applied references. Also, claims 56 and 59-62 depend, directly or indirectly from allowable claim 55, and are therefore allowable at least by virtue of their dependencies.

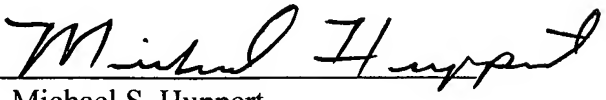
In view of the above, it is submitted that the present application is now clearly in condition for allowance. The Examiner therefore is requested to pass this case to issue.

In the event that the Examiner has any comments or suggestions of a nature necessary to place this case in condition for allowance, then the Examiner is requested to contact Applicant's undersigned attorney by telephone to promptly resolve any remaining matters.

The Commissioner is authorized to charge any deficiency or to credit any overpayment associated with this communication to Deposit Account No. 23-0975, with the EXCEPTION of deficiencies in fees for multiple dependent claims in new applications.

Respectfully submitted,

Rui YUGE et al.

By: 

Michael S. Huppert
Registration No. 40,268
Attorney for Applicants

MSH/kjf
Washington, D.C. 20005-1503
Telephone (202) 721-8200
Facsimile (202) 721-8250
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